1. (Currently amended) A puncture and cut resistant material comprising:

a plurality of substantially spherical macrospheres, each macrosphere comprising:

a plurality of substantially spherical microspheres ~~aggregated together~~; and

a polymer [coating] surrounding and aggregating the microspheres together to form the substantially spherical macrosphere

[;]

~~wherein the polymer coating over the aggregated microspheres forms a macrosphere having a substantially smooth spherical surface~~.

2. (Canceled)

3. (Currently amended) The puncture and cut resistant material of claim 1 ~~wherein~~ further comprising for each of the plurality of macrospheres:

a plurality of capture devices, each capture device comprising [each] an area between adjacent microspheres and the polymer [coating] surrounding [in] the ~~area between~~ adjacent microspheres ~~forms a capture device~~; and

wherein the plurality of microspheres and surrounding polymer [coating] create a ~~contiguous set~~ plurality of capture devices surrounding the macrosphere; and

wherein each capture device is adapted to capture a point of an invading sharp instrument.

4. (Original) The puncture and cut resistant material of claim 1 wherein:

the microspheres comprise alumina.

5. (Original) The puncture and cut resistant material of claim 1 wherein:

the microspheres comprise a magnetically sensitive material.

6. (Original) The puncture and cut resistant material of claim 1 wherein:

each microsphere has a diameter of approximately 5 to 10 mils; and

each macrosphere has a diameter of approximately 20 to 60 mils.

7. (Original) The puncture and cut resistant material of claim 1 wherein:

the polymer comprises high density polyethylene.

8. (Original) The puncture and cut resistant material of claim 1 further comprising:

a first array of adjacent macrospheres; and

an elastomer encapsulating the first array of adjacent macrospheres.

9. (Original) The puncture and cut resistant material of claim 8 further comprising:

a second array of adjacent macrospheres overlaying the first array; and

a third array of adjacent macrospheres overlaying the second array;

wherein the elastomer encapsulates the first, second, and third arrays of adjacent macrospheres.

10. (Original) The puncture and cut resistant material of claim 9 wherein the elastomer encapsulated first, second, and third arrays of adjacent macrospheres form a puncture resistant

surgical glove.

11. (Currently amended) A puncture and cut resistant material comprising:

a plurality of substantially spherical macrospheres, each macrosphere comprising:

a substantially spherical porous structure having a porous surface comprising a plurality of [with] random pores; and

a polymer coating over the porous structure;

wherein the polymer coating over the porous structure forms a substantially spherical macrosphere having a substantially smooth surface.

12. (Currently amended) The puncture and cut resistant material of claim 11 [wherein] further comprising for each of the plurality of macrospheres:

a plurality of capture devices, each capture device comprising:

[each] one of the plurality of random [pore] pores and the polymer coating over the random pore ~~macrospheres forms a capture device~~;

wherein [the] each capture device is adapted to capture a point of an invading sharp instrument.

13. (Original) The puncture and cut resistant material of claim 11 wherein:

the macrospheres comprise porous aluminum oxide.

14. (Original) The puncture and cut resistant material of claim 11 wherein:

the macrospheres comprise a magnetically sensitive material.

15. (Original) The puncture and cut resistant material of claim 11 wherein:

each macrosphere has a diameter of approximately 60 to 120 mils.

16. (Original) The puncture and cut resistant material of claim 11 wherein:

the polymer comprises high density polyethylene.

17. (Original) The puncture and cut resistant material of claim 11 further comprising:

a first array of adjacent macrospheres;

a second array of adjacent macrospheres overlaying the first array;

a third array of adjacent macrospheres overlaying the second array; and

an elastomer encapsulating the first, second, and third arrays of adjacent macrospheres.

18. (Currently amended) A puncture and cut resistant surgical glove comprising:

a plurality of overlaying arrays of adjacent substantially spherical macrospheres, each macrosphere having a plurality of capture devices, each capture device adapted to capture a point of an invading sharp instrument;

wherein each substantially spherical macrosphere having a plurality of capture devices comprises:

a plurality of microspheres; and

a polymer surrounding and aggregating the microspheres together;

wherein each capture device comprises an area between adjacent microspheres and the polymer surrounding the adjacent microspheres;

wherein the plurality of microspheres and

surrounding polymer create a plurality of capture devices surrounding the macrosphere; and

wherein each capture device is adapted to capture a point of an invading sharp instrument; and

an elastomer encapsulating the plurality of overlaying arrays of adjacent macrospheres.

19. (Canceled)

20. (Canceled)

21. (Original) The puncture and cut resistant surgical glove of claim 18 wherein:

each macrosphere has a diameter of approximately 20 to 120 mils.

22. (Original) The puncture and cut resistant surgical glove of claim 18 wherein:

each macrosphere comprises a magnetically sensitive material.

23. (Currently amended) A method of producing a puncture and cut resistant material comprising the steps of:

forming a plurality of substantially spherical macrospheres, each macrosphere having a plurality of capture devices, each capture device adapted to capture a point of an invading sharp instrument; and

injecting the macrospheres and an elastomer into an injection mold.

24. (Currently amended) The method of claim 23 for producing a puncture and cut resistant material wherein the steps of forming a plurality of substantially spherical macrospheres [,] ~~each macrosphere having capture devices~~

comprises the steps of:

spraying droplets of molten alumina;

cooling the droplets to form microspheres;

spraying [a] droplets of a solution of microspheres and liquefied polyethylene; and

cooling the droplets to form macrospheres, each macrosphere comprising aggregated microspheres coated with polyethylene.

25. (Currently amended) The method of claim 23 for producing a puncture and cut resistant material wherein the steps of forming a plurality of substantially spherical macrospheres [,] ~~each macrosphere having capture devices~~ comprises the steps of:

spraying droplets of molten alumina and a second material that volatizes at a lower temperature than the alumina;

cooling the droplets to form porous macrospheres;

tumbling the porous macrospheres with an abrasive to open up the surface and remove any intact surface film of alumina;

spraying [a] droplets of a solution of porous macrospheres and liquefied polyethylene; and

cooling the droplets to form polyethylene coated porous macrospheres;

wherein when the second material volatizes at the lower temperature, bubbles are formed in the droplets forming the porous macrospheres.

26. (Currently amended) A method of producing a puncture and cut resistant material comprising the steps of:

forming magnetically sensitive substantially spherical macrospheres, each macrosphere having a plurality of capture devices, each capture device adapted to capture a point of an invading sharp instrument;

dipping a former comprising electro-magnetic elements into

a solution of the magnetically sensitive macrospheres and an elastomer; and

activating the electro-magnetic elements;

whereby activating the electro-magnetic elements draws the magnetically sensitive macrospheres onto surfaces of the former.

27. (Currently amended) The method of claim 26 for producing a puncture and cut resistant material wherein the steps of forming substantially spherical magnetically sensitive macrospheres [,] ~~each macrosphere having capture devices~~ comprises the steps of:

spraying droplets of molten alumina comprising a magnetically sensitive material;

cooling the droplets to form microspheres;

spraying [a] droplets of a solution of microspheres and liquefied polyethylene; and

cooling the droplets to form macrospheres, each macrosphere comprising aggregated microspheres coated with polyethylene.

28. (Currently amended) The method of claim 26 for producing a puncture and cut resistant material wherein the steps of forming substantially spherical macrospheres ~~[,] each macrosphere having capture devices~~ comprises the steps of:

spraying droplets of molten alumina comprising a magnetically sensitive material and a second material that volatizes at a lower temperature than the alumina;

cooling the droplets to form porous magnetically sensitive macrospheres;

tumbling the porous magnetically sensitive macrospheres with an abrasive to open up the surface and remove any intact surface film of alumina;

spraying [a] droplets of a solution of porous magnetically

sensitive macrospheres and liquefied polyethylene; and

cooling the droplets to form polyethylene coated porous magnetically sensitive macrospheres;

wherein when the second material volatizes at the lower temperature, bubbles are formed in the droplets forming the porous magnetically sensitive macrospheres.

29. (New) The puncture and cut resistant material of claim 17 wherein the elastomer encapsulated first, second, and third arrays of adjacent macrospheres form a puncture resistant surgical glove.